

KALAMAZOO

Hand Cars
Rail-road Velocipede

Company



KALAMAZOO

MICH

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RAND, MCN

G. W. MILLER, PRESIDENT.

H. G. HAINES, SECRETARY.

KALAMAZOO RAILROAD VELOCIPED CO.

KALAMAZOO, MICHIGAN, U. S. A.

MANUFACTURERS OF

STEEL RAILROAD VELOCIPEDES

Section, Telegraph, Push and Inspection Hand Cars.

ALSO

STEEL BAGGAGE, EXPRESS AND WAREHOUSE TRUCKS.

OUR VELOCIPEDS AND HAND CARS MAY BE SEEN AT

HOWARD LOCKWOOD'S PERMANENT EXHIBITION,

Nos. 24, 26, 28, 30, 32 and 34 New Chambers Street,

NEW YORK, U. S. A.

KAND, McNALLY & CO., PRINTERS, CHICAGO.



INTRODUCTORY

IN presenting this, our Third Annual Catalogue, we take pleasure in calling to your notice, illustrations of our latest improved patent Section, Inspection, Telegraph and Steel Velocipede Cars; also our new Steel Baggage Trucks. We have, by careful study, expensive experiments, three years' experience, special machinery, and by using carefully selected material, been enabled to produce goods, that for utility, durability, strength and safety, have proved highly satisfactory to our customers and ourselves. We call the attention of those interested to the superior points of excellence of our production.

OUR BUSINESS.

About three years ago this Company commenced, in a small way, to manufacture a CAST and WROUGHT IRON Three-Wheel Velocipede Car, the weight of it being two hundred pounds. The main principle of the car was considered by practical railroad men to be far superior to anything of the kind ever invented, but we received some complaints, calling our attention to excessive weight, imperfect castings, imperfections in workmanship, etc. We consequently set out to improve our car about eighteen months ago, and by December 1st, 1884, we commenced to ship our ALL STEEL AND MALLEABLE IRON VELOCIPEDE CARS, weight only one hundred and thirty-five pounds, and each car constructed to carry either one or two men. We have shipped since that time nearly one thousand cars, and are happy to say, with three exceptions, they have proved themselves highly satisfactory to the purchasers, as will be seen by referring to the flattering testimonials in this catalogue. We insert only a few testimonials, but have over five hundred on file in our office (most of which are unsolicited), which are always open for

inspection of interested parties. From time to time we have added other styles of cars to our business, and now manufacture all of the different cars and baggage trucks illustrated in this book. Our business has more than doubled the past year, and is steadily increasing every month. We have, in consequence of such increase, just added to our present works a two-story brick building, 60 x 165 feet, and added special machinery for the manufacture of our goods; and by aid of skilled workmen, practical machinists and increased facilities, we are enabled to produce machines of superior construction and finish, and to furnish our customers with the latest and best improvements in our line.

We take this opportunity of thanking our patrons for their liberal patronage in the past, and would again say, in conclusion, that our increased facilities and important improvements enable us to serve our customers better than ever before.

OUR VELOCIPEDE CARS ARE USED BY

SUP'TS BRIDGES AND BUILDINGS.

ROADMASTERS.

SUP'TS WATER SUPPLY.

CHIEF ENGINEERS.

SECTION FOREMEN.

TRACK WALKERS.

FUEL AGENTS.

TELEGRAPH LINE REPAIRERS.

YARD MASTERS.

TIE INSPECTORS.

SUP'TS CONSTRUCTION.

CONTRACTORS.

SUPERVISORS.

COAL MINERS.

SAWMILL MEN.

PRINCIPAL POINTS OF ADVANTAGE OVER OTHER VELOCIPEDES.

Our inventions have for their object to so construct a Three-Wheeled Velocipede that its operation and movement shall not be retarded by the usual friction and side draft of the brace wheel, as in prior devices; that it shall have greater driving or propelling capacity, and all danger of upsetting be obviated. A Velocipede thus having a drive-wheel on each rail is equally balanced by the weight of the operator, or operators, and can not be ACCIDENTLY UPSET. It will also be observed that the forward wheels are drivers, which wheels draw the device instead of pushing, thus obviating all side draft. It is propelled

by the hands and feet, and is easily run by EITHER ONE OR TWO MEN. Where two men are operating, each does an equal amount of labor. The motion is the same as rowing. The operator always sits facing the direction in which the car is being run. The car is so constructed that it can not tip off the track IN MAKING CURVES, no matter how fast it is being propelled. Our car runs backward as well as forward on level and straight track, which is considered a GREAT ADVANTAGE over other Velocipedes. Axle revolves under friction rollers. These rollers are four inches in diameter, with BRASS boxes, which run on five-eighths hard machinery steel journals.

PATENT WHEELS.

We use a patent anti-buckling ALL steel wheel, twenty inches in diameter, suspension tension ; machinery steel tire, FLANGED and HARDENED. This process of making greatly increases strength. Steel staples are riveted in countersunk holes in tire. Bessemer steel spokes, doubled with conical-shaped heads, made cold, pass through staples, and heads are hooked in recesses in hubs—completing sure, strong, and perfect foundation and suspension. The hub is composed of three pieces ; the tension is produced by screwing the box through the outer spoke receptacle against the inner spoke receptacle, forcing them apart, thus drawing the tire toward a common centre, making it perfectly true and round. By reason of one spoke pulling against its opposite, we have the only successful anti-buckling wheel in the market. The wheel is very strong, light, and pretty elastic, and so simply constructed that a person of ordinary intelligence can take it apart and put it together.

THE STRONGEST LIGHT WHEEL IN THE WORLD.

The above described STEEL WHEEL, weight sixteen pounds, used on Velocipede Car, was recently tested before a special Committee of the Franklin Institute, Philadelphia, Pa., and stood a solid pressure or strain, in one position, of 6,500 lbs., and in another position of 7,300 lbs., bearing on the hub of wheel.

No. 1 — Carries either One or Two Men.



Seven-eighths inch Hard Machinery Steel Axles are used.
Steel Velocipede Car, 4 ft. 8½ in. gauge, showing position one operator.
Weight. 135 lbs. Price, \$38.00.

Kalamazoo Railroad Velocipede Co.

KALAMAZOO, MICH., U. S. A.



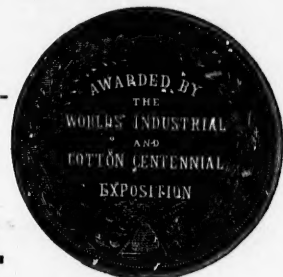
Awarded Gold Medal at World's Industrial Exposition, New Orleans, 1885,



ON THEIR



Improved Velocipedes *and* Hand Cars.



"First Class Medal for Hand Cars."

"First Class Medal for Steel Velocipede Car."

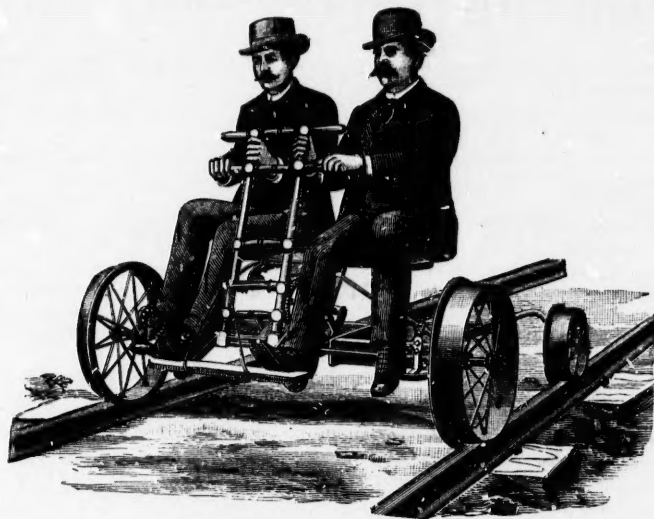
"The VELOCIPEDE CAR of this Company is entitled to Special Mention in addition to Medal Awarded."

We would respectfully invite the attention of parties engaged in exporting goods of American manufacture to the line of Cars and Trucks illustrated and described in this Catalogue.

We have taken out broad patents fully covering the within illustrations in the United States and foreign countries.

PRICE LISTS AND DISCOUNT SHEETS FURNISHED ON APPLICATION.

No. 1 — Carries either One or Two Men.



Axle revolves under friction rollers, which are provided with brass boxes.
Steel Velocipede Car, 4 ft. 8½ in. gauge, showing position two operators.
Weight, 135 lbs. Price, \$38.00.

TESTIMONIALS.

Richmond & Danville Ry. Co.; C. P. Hammond, Road Master, Atlanta, Ga.

Have used your lever Hand Cars, with no dead centre, for several months, and, so far, they have given entire satisfaction. Section-master claims they can save from one to two hours a day over the ordinary cars. I consider them the best cars for the purpose I have yet seen.

Robinson & Cory, Railway Supplies, St. Paul, Minn.

We are well pleased with your Velocipedes, and are getting what we consider the best possible report from the purchasers, which is, that we hear nothing further from them after we get our money.

J. S. McLennan, Secy. and Treas. International Ry. & Coal Co., Sydney, Cape Breton.

We find your Car a great improvement over anything of the kind we have had before.

Wm. S. Thompson, Genl. Manager Batesville & Brinkley Ry., Little Rock, Ark.

Am well pleased with your Car. It is used by cotton buyers and officials of our road; and one or two men easily make from 12 to 15 miles per hour. It is easily removed from track. I regard it as a valuable auxiliary to any railroad.

H. D. Titus, Actg. Supt. Southern Central Ry., Auburn, N. Y.

I take pleasure in saying that the Velocipede Cars in use have given us good satisfaction, and we are much pleased with them.

J. Gresham Aikman, Supt. Cumberland Ry. & Coal Co., Parrsboro, N. S.

I find the Velocipede Car which I purchased from you, to answer exceedingly well.

Samuel Latchworth, Road Master Worcester, Nashua & Rochester Ry., Nashua, N. H.

Your Velocipede is all you claim for it. I have been over three and four sections in one day; and I find it easy to handle, strong and durable.

Frank M. Baker, Genl. Supt. Addison & North Penn. Ry., Addison, N. Y.

Your Steel Velocipede gives us good satisfaction. Its light weight, combined with strength, renders it invaluable to any railroad.

A. T. Swift, Supt. Bridges Del. & Hud. Canal Co., Albany, N. Y.

I have found it exceedingly convenient in inspecting track and bridges, with one or two men. I can make 15 miles per hour, over ordinary grades, without difficulty.

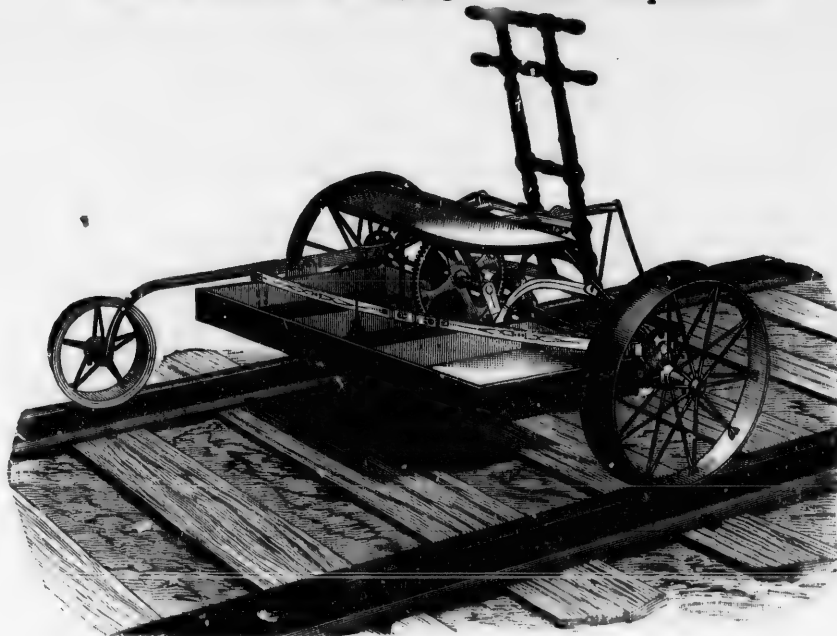
A. W. Humphreys, Prest. Sterling Iron & Ry. Co., 47 Pine St., N. Y. City.

Your Steel Velocipede equals your representations, and we find it a great convenience on our road, on which some of the grades are very heavy.

E. J. Perry, Prest. Hanover Branch Ry., So. Hanover, Mass.

Your Steel Velocipede gives us good satisfaction.

No. 2—For Telegraph Line Repairers.



Our Velocipede runs backward as well as forward—a great advantage.
Above Car carries one or two men, and a load of 200 lbs.
Weight, 150 lbs. Price, \$40.00.

TESTIMONIALS — Continued.

**Delaware & Hudson Canal Co. Ry., A. Grote, Master of
Bridges, Green Island, N. Y.**

I have had one of your Steel Velocipedes for six months, and it gives entire satisfaction in every respect

**Thomas Robertson, Genl. Master Mechanic T., C. & St. L. Ry.,
Delphos, Ohio.**

Your Steel Velocipede is entirely satisfactory.

**T. L. Slaughter, Road Master New Orleans & Northeastern
Ry., Vicksburg, Miss.**

I am very much pleased with your Steel Velocipede.

Mahoning Valley Iron Co., Youngstown, Ohio.

We find your Velocipede a great convenience. It runs easily, and can carry two men rapidly over any reasonably good road. We recommend the machine heartily.

**John B. Shaw, Supt. Telegraph N. Y., P. & O. Ry., Jamestown,
N. Y.**

The lineman who uses the Velocipede received from you some six months ago says: "I like the car better than any I ever had, and like it better and better every time I use it."

Morris Coal Co., Sand Run, Ohio.

Your Velocipede has been in daily use since last April, and we like it. We wish you every success.

Osterhout & Fox Lumber Co., Grand Rapids, Mich.

We are using several of your Steel Velocipedes between our different mills, and are free to say they are the best that we have ever used, and perfectly satisfactory.

H. B. McGee, Purchasing Agent M., H. & O. Ry., Marquette.

Our line repairers say your Steel Velocipede Car is very convenient and easy running.

**M. H. Dooly, Road Master Western & Atlantic Ry., Atlanta,
Ga.**

Your Steel Velocipede gives perfect satisfaction. I am so well pleased with it that I have recommended it to two other roads.

"Custer Forwarding Co.," Custer Station, M. T., No. Pac. R. R.

Your Steel Velocipedes are all you claim for them, and more too. I would not be without one for twice the cost.

Jas. W. Davis, Road Master Valley Ry., Staunton, Va.

Your Steel Velocipede gives entire satisfaction, and I can highly recommend it to track inspectors.

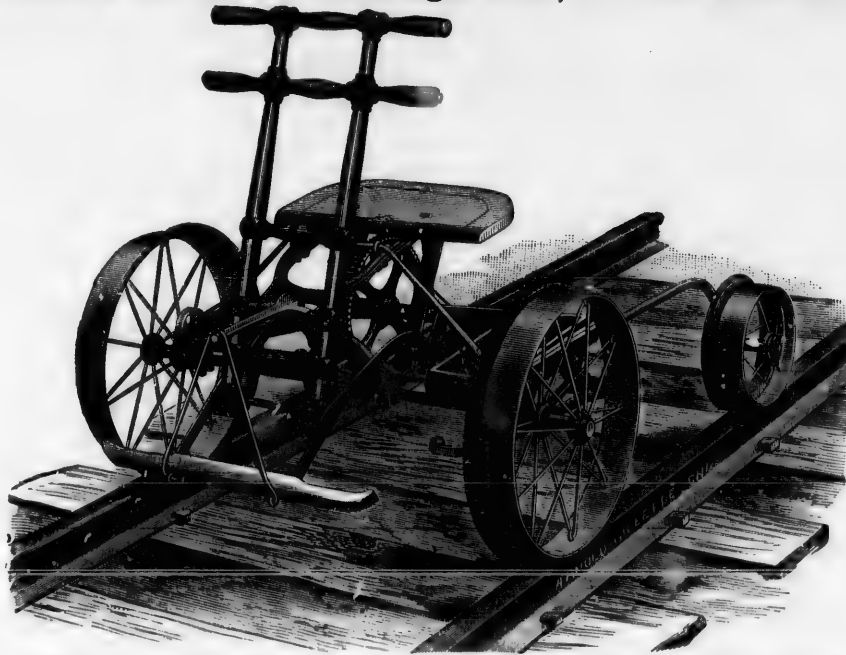
**H. B. Potter, Engineer M. of W., T. & G. R. R., North Adams,
Mass.**

I am using your Steel Velocipede myself, with good results.

**Joseph Hunter, Chief Engineer Esquimalt & Nanaimo Ry.,
Victoria, B. C.**

Your Steel Velocipedes have been in use on this road for some time, and are giving entire satisfaction in every respect.

No. 3 — Carries One Man with Single Seat, or Two Men with Double.



We use Twenty-inch Driving Wheels, and gear cars $3\frac{1}{4}$ to 1. Narrow Gauge Velocipede, 8 ft. Weight, 125 lbs. Price (with either single or double seat), \$38.00.

OUR IMPROVED HAND CARS.

The Patent Section, Inspection and Telegraph Hand Cars manufactured by us, are light, speedy, durable, and very easily propelled. The peculiar construction of the cranks, being set oblique to each other, does away with dead centres and perfectly economizes power used. The trussed levers passing each other to their pivots, apply their power to both sides of the spur gear, thereby securing additional leverage unattainable in any other cars. The gas pipe standards are strong, light and durable, occupy but little space, and will outwear any other device yet put into practice.

We make Platform of Section and Inspection Cars six feet seven inches long, and Telegraph Hand Car six feet long, but will make longer if desired without extra charge.

Our new Brake operates instantaneously on the front driving wheels. The power is applied by stepping on a pedal, located immediately under lever, and power is such that car can be stopped, when running at a rate of twenty miles per hour, within a distance of twenty feet. Each car is provided with a tool box.

These cars are especially adapted for Section, Bridge and Construction Gangs, being very strong, speedy, and easily propelled. Eighteen to twenty miles per hour can easily be made. We use best of selected white oak for frames, supported by truss rods, and one and one-fourth inch hard machinery steel axles. All bearings made with anti-friction metal. Wheel, twenty-four inches in diameter.

We claim these cars are unequalled for lightness, speed, ease of handling and durability, and when once introduced will be universally adopted.

As to the superior points of merit, which our Hand Cars possess, we would refer to our testimonials.

No. 4—Standard Section Hand Car.



One and one-fourth inch Hard Machinery Steel Axles are used.
Capacity of above Car, ten men and tools. Geared $3\frac{1}{2}$ to 1.
Weight, 550 lbs. Price, single car, \$55.00.

TESTIMONIALS—Continued.

**W. H. Gillespie, Section Foreman W., St. L. & P. Ry.,
Clymers, Ind.**

After using your *Steel Velocipede* eight months, I find it good as new. I have carried two men, besides myself (a load of 487 lbs.), and made 6 miles in 20 minutes. It is the best velocipede made for durability, speed, light running, and ease with which it can be removed from track.

T. W. Hogue, Agt. St. L. & S. F. Ry., Rolla, Mo.

Your *Steel Velocipede* is a "daisy," and all that it is recommended to be.

**H. Gerdron, Baggage Master Grand Trunk Ry., St. Hyacinthe,
Canada.**

Your *Steel Car* is the best I have ever used. It is durable, speedy, easily propelled, and easily handled.

N. T. Nelson, Agt. C. & N.-W. Ry., Viola, Minn.

It will carry two men at a speed of from 12 to 15 miles per hour. It is the easiest running car I have ever used.

J. T. Robinson, Agt. B. C., C. & S. W. Ry., Wallaceton, Pa.

My *Steel Velocipede* gives perfect satisfaction.

**S. G. Scott, Supervisor So. Div. G. R. & I. and C., R. & Ft. W.
Rys., Kalamazoo, Mich.**

I consider your *Velocipede* the best in the market.

E. A. Van Horne, Genl. Supt. U. & B. R. Ry., Utica, N. Y.

I have used several styles of *Velocipedes*, but consider yours the best.

J. E. Ralph, Supt. F. & N. Y. Ry., Keyporte, N. J.

The *Velocipede* is used daily in track inspection, and I find it substantially and honestly constructed.

J. B. Nelson, Agt. W., St. L. & P. Ry., Albia, Iowa.

The *Steel Velocipede* is a great improvement over the old iron car. The new wheel is very durable, and perfectly safe in passing over frogs.

Saml. R. Babcock, Agt. St. P., M. & M. Ry., Auburn, Dak.

My *Steel Car* gives perfect satisfaction in every way.

G. W. Truitt, Windsor, N. C.

I am very much pleased with my *Car*. It is giving entire satisfaction.

Thad. Whitley, Agt. Tex. & Pac. Ry., Colorado, Texas.

I have used the *Steel Velocipede* 7 months, and find it superior to any I have ever used before, it being much safer.

Chas. B. Shaw, Agt. Northern Central Ry., Penn Yan, N. Y.

If you want a *Car* that is light, durable, and easily propelled, buy the "Kalamazoo" *Steel Velocipede*.

**E. Van Deusen, Agt. B. & M. R. R. R. in Nebraska, Riverton,
Neb.**

My *Car* works splendidly. Two of us ran it 13 miles in 45 minutes.

J. J. Newman, Lumber Dealer, Larrabee, Pa.

I have bought three of your *Steel Velocipedes*. They are light, strong, durable and easily propelled.

No. 5—Standard Inspection Car.



Frames of all Cars made of selected White Oak.
Capacity of above Car, two to four operators and three inspectors. Geared $3\frac{1}{2}$ to 1.
Weight, 550 lbs. Price, single car, \$60.00.

TESTIMONIALS—Continued.

**C. F. Burnell, Agt. Portland & Ogdensburg Ry., West
Baldwin, Me.**

I have used your Velocipede 12 months, and it far exceeds my expectations. It is speedy, and perfectly safe in making curves, frogs and switches.

N. P. Lord, Agent C., M. & St. P. Ry., Sand Spring, Iowa.

I have used your Steel Car some time, and it runs well with either one or two men.

Geo. A. Reynolds, Agt. C., B. & Q. Ry., Aledo, Ill.

I have used your *Steel Velocipede* 6 months, and it is the easiest and most convenient Car I have ever seen.

Ware & Olin, Saw and Planing Mill, Sand Lake, Mich.
Yours is the best Velocipede manufactured.

**G. F. Arnold, Contractor Houston & Texas Central Ry.,
Hempstead, Texas.**

Your *Steel Car* is in constant use, and does all you claim for it.

Columbus Grove Stave Co., Columbus Grove, Ohio.

We have used the "Wooden Car," but consider yours far superior. It runs at least one-third lighter, and, being made of steel, is much more durable. We consider it perfection, after a thorough test.

**James M. Mills, Agt. Pittsburg & Western Ry., Sheffield
Jct., Pa.**

The *Steel Velocipede* purchased some months ago has proved satisfactory in every respect.

E. W. Wilson, Agt. St. P., M. & M. Ry., Gardner, Dak.
Your 135-lb. *Steel Velocipede* is unequalled for strength, durability and speed. I have carried from 400 to 500 lbs. on it.

C. Estabrook, Agt. Ft. W., C. & L. Ry., Newcastle, Ind.
I consider your *Steel Velocipeds* the best in the market.

Wm. J. Getker, Agt. A., T. & S. Fe Ry., Eudora, Kan.
I have made 20 and 25 miles per hour with your Car. I prefer the "Kalamazoo" *Steel Car* to any other.

L. H. Vineyard, Agent Union Pacific Ry., Medicine Bow, Wyo.
It is unequalled for speed, durability and light running.

WHAT THEY SAY ABOUT OUR HAND CARS.

**Jacksonville, Tampa & Key West R. R., G. W. Bentley, Genl.
Manager.**

I am much pleased with your Hand Cars. They look to me to be durable, whilst they are much lighter than I have seen before. Our road master and bridge master, both of them men of long experience, and well qualified to judge, pronounce them the best Hand Cars they have ever seen.

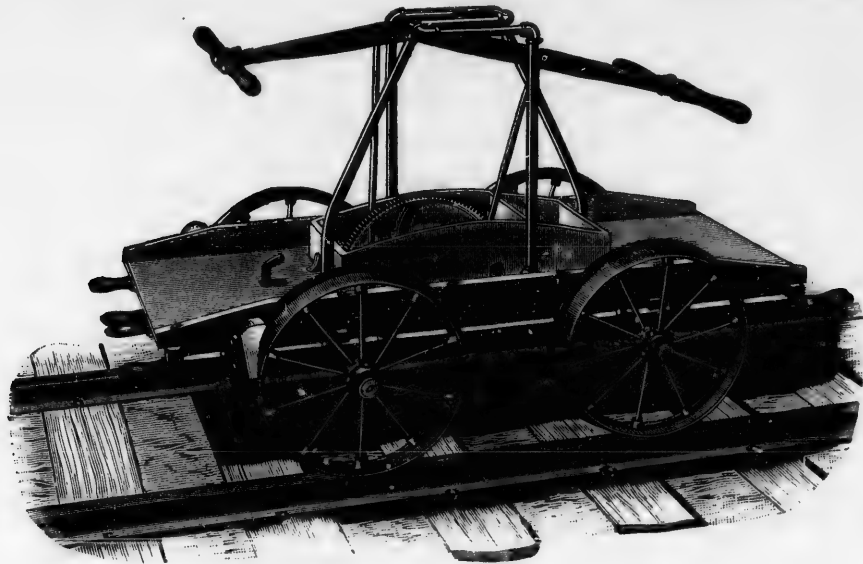
**New York City & Northern R. R. Co.; F. S. Gannon, Genl.
Superintendent.**

We have your Cars in constant use, and find them light running, of good timber, well ironed, and first-class in every particular.

**Louisville, New Orleans & Texas Ry. Co.; J. W. B. Hillhouse,
Supt. Roadway, Memphis.**

Your Telegraph Hand Cars are light, strong, and very easily run.

No. 6—Narrow Gauge Section Car without Seats.



All Cars provided with Trussed Wrought Iron Levers.
Capacity of above Car, four to six men and tools. Geared $3\frac{1}{2}$ to 1.
Weight, 450 lbs. Price, single car, \$50.00.

TESTIMONIALS — Continued.

Southwestern Arkansas & Indian Territory Ry.; J. A. Smith, Prest., Smithton, Ark.

The Hand Car is a good one. I am well pleased with it.

Norfolk Southern R. R. Co.; A. M. Hawkins, Supervisor.

After an experience of 20 years as track man, I consider your Hand Car the best I have ever seen. The dead centre being done away with, perfectly economizes the power and makes its speed very great. I can accomplish as much in one month with the use of your car, in section work, with four (4) men, as I could with six men with the ordinary car in use on most railroads. I have ten sections, and an extra floating gang. With your car on each section, and one with the extra force, I can well afford to do away with one man from each section, as I know that the use of your car will more than compensate for the loss of one man from each gang. The reduction of eleven men at \$1 per day, or \$26 per month to each man, is \$286 per month reduction, which will pay any railroad company to save.

Lake Creek R. R.; R. T. Hardesty, Montgomery, Texas.

The Section Hand Car gives me perfect satisfaction.

Pennsboro & Harrisville R. R. Co.; M. P. Kimball, Prest., Pennsboro, W. Va.

We are well pleased with your narrow gauge Hand Car. It is light, strong and speedy. It is worth to us a saving of one man's time.

Somerset Ry. Co.; W. M. Ayer, Supt., Oakland, Me.

Your Hand Cars are doing good service.

Hopkins Mfg. Co., Bear Lake, Mich.

We are well pleased with the Hand Car. It works well in every particular.

Ottumwa & Kirkville Ry.; H. L. Waterman, Genl. Mgr., Ottumwa, Ia.

We are using your Section Hand Cars, and find them superior to any we have ever used before.

Cheshire Railroad Co.; R. Hyland, Road Master, Keene, N. H.

We have had your Section Hand Cars in use on our road two years, and they give entire satisfaction.

Wagar Lumber Co., Ionia, Mich.

The Hand Car purchased of you has given the best of satisfaction, and we consider it the best made Car in the market.

Payne, Cook & Co. (Saw Mill), Highland, Fla.

We are much pleased with your Section Hand Car. It works entirely satisfactorily.

St. John & Halifax R. R. Co.; U. J. White, Prest., San Mateo, Fla.

The narrow gauge Hand Car of your make gives good satisfaction, and we consider them the best in the market.

St. Louis, Hannibal & Keokuk Ry.; E. C. Case, Receiver, Hannibal, Mo.

We have several of your Hand Cars in use, and consider them as serviceable and compact in their design as any we have ever used.

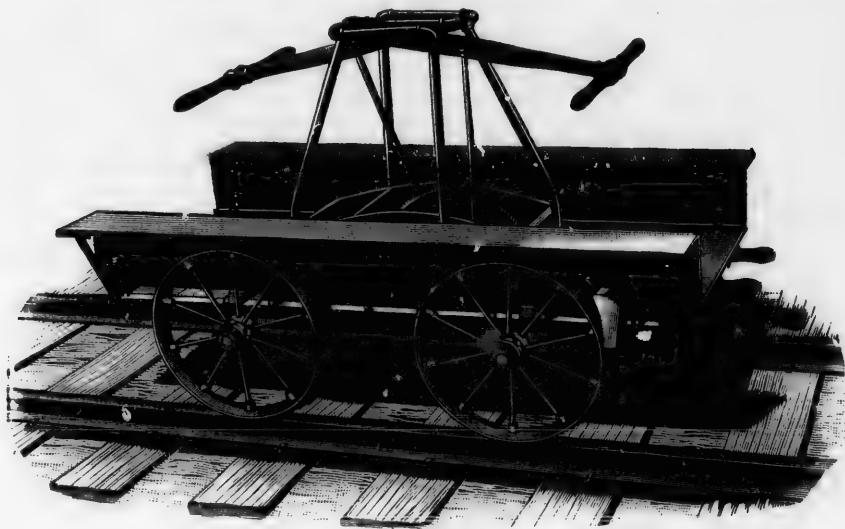
Wheeling & Elm Grove Ry.; C. Hirsch, Supt., Wheeling, W. Va.

I can recommend your Hand Cars for durability, lightness, ease of running and high speed.

St. Augustine & Halifax River Ry.; W. L. Crawford, Genl. Mgr.

The narrow gauge Section Hand Cars are giving good satisfaction.

No. 7—Narrow Gauge Section Car with Seats.



We use Gas Pipe Standards.

Capacity of above Car, eight to ten men and tools. Geared $3\frac{1}{2}$ to 1.

Weight, 550 lbs. Price, single car, \$55.00.

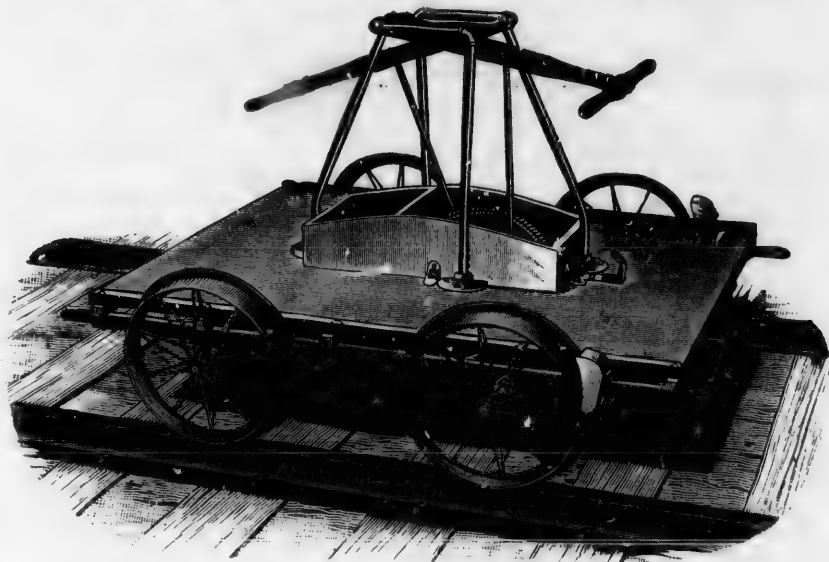
PARTIAL LIST OF ROADS ON WHICH OUR CARS ARE IN USE.

Addison & Northern Pennsylvania.
 Adirondack.
 Albemarle & Raleigh.
 Allegheny Valley.
 Anglesea
 Arizona & New Mexico.
 Atchison, Topeka & Santa Fe.
 Baltimore & Ohio.
 Batesville & Brinkley.
 Bath & Hammondsport.
 Beech Creek, Clearfield & Southwestern
 Boston & Lowell.
 Boston & Maine.
 Boston & Providence.
 Brunswick & Western.
 Buffalo, New York & Philadelphia.
 Burlington & Missouri River in Nebraska.
 Burlington, Cedar Rapids & Northern.
 Canadian Pacific.
 Cape Fear & Yadkin Valley.
 Carolina Central.
 Central Iowa.
 Central Railroad of Georgia.
 Charlotte, Columbia & Augusta.
 Chateaugay Railway.
 Chesapeake & Ohio.
 Cheshire.
 Chicago, Burlington & Quincy.
 Chicago & Iowa.
 Chicago, Milwaukee & St. Paul.
 Chicago, St. Paul, Minneapolis & Omaha.
 Cincinnati & Eastern.
 Cincinnati, Georgetown & Portsmouth.
 Cincinnati, New Orleans & Texas Pacific.
 Cincinnati, Wabash & Michigan.
 Cleveland & Marietta.
 Cleveland, Columbus, Cincinnati & Indianapolis.
 Columbus & Rome.
 Concord.
 Connecticut River.
 Crown Point Iron Co.
 Cumberland Railway & Coal Co.
 Delaware & Hudson Canal Co.
 Delaware, Lackawanna & Western.
 Denver & Rio Grande.

Detroit, Bay City & Alpena.
 Detroit, Grand Haven & Milwaukee.
 Detroit, Lansing & Northern.
 East Tennessee, Virginia & Georgia.
 Elmira, Cortland & Northern.
 Flint & Pere Marquette.
 Florida Southern.
 Fonda, Johnstown & Gloversville.
 Fort Worth & Denver City.
 Freehold & New York.
 Georgetown & Lanes.
 Gettysburg & Harrisburg.
 Grand Rapids & Indiana.
 Grand Southern.
 Grand Trunk of Canada.
 Green Bay, Winona & St. Paul.
 Gulf, Colorado & Santa Fe.
 Hanover Branch.
 Houston, c.
 Houston & Texas Central.
 Intercolonial.
 Jacksonville Southeastern.
 Jacksonville, Tampa & Key West.
 Kansas City, Fort Scott & Gulf.
 Knoxville & Augusta.
 Knoxville & New River.
 Lackawanna & Pittsburgh.
 Lake Shore & Michigan Southern.
 Lehigh Valley.
 Ligonier Valley.
 Little Rock & Fort Smith.
 Louisville & Nashville.
 Louisville & Wadley.
 Louisville, New Albany & Corydon.
 Louisville, New Orleans & Texas.
 Marquette, Houghton & Ontonagon.
 Memphis & Little Rock.
 Mexican National.
 Michigan & Ohio.
 Michigan Central.
 Milwaukee, Lake Shore & Western.
 Mississippi & Tennessee.
 Missouri Pacific.
 Mobile & Northwestern.
 Montour.

Naugatuck.
 New Haven & Derby.
 New Orleans & Selma.
 New York City & Northern.
 New York, Chicago & St. Louis.
 New York, Lake Erie & Western.
 New York, New Haven & Hartford.
 New York, Pennsylvania & Ohio.
 Norfolk & Western.
 Norfolk Southern.
 Northern Pacific.
 Old Colony.
 Olympia & Chehalis Valley.
 Ontario & Quebec.
 Oregon & California.
 Oxford & Henderson.
 Pennsylvania.
 Philadelphia & Reading.
 Pittsburgh & Western.
 Port Huron & Northwestern.
 Richmond & Danville.
 Rochester & Pittsburgh.
 Rome & Carrollton.
 St. Louis, Hannibal & Keokuk.
 St. Paul, Minneapolis & Manitoba.
 Scioto Valley.
 Shepaug.
 Somerset.
 Southern Maryland.
 South Florida.
 Texas & St. Louis.
 Toledo, Cincinnati & St. Louis.
 Tonawanda Valley & Cuba.
 Troy & Boston.
 Union Pacific.
 Utica & Black River.
 Vaca Valley & Clear Lake.
 Virginia & Truckee.
 Wabash, St. Louis & Pacific.
 Western & Atlantic.
 Washington, Ohio & Western.
 Worcester, Nashua & Rochester.
 York & Peachbottom.

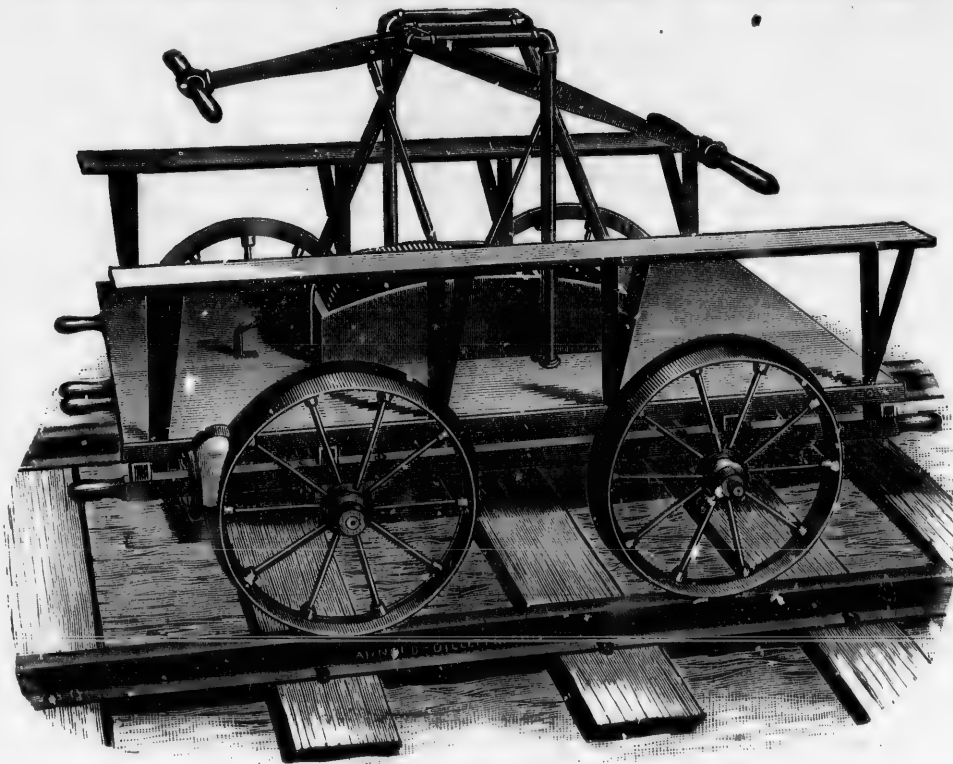
No. 8—Standard "Telegraph" Hand Car.



Our Four-wheel Cars have NO DEAD CENTRE.
Capacity of above Car, two to four men and tools. Geared $4\frac{1}{4}$ to 1.
Weight, with steel wheels, 300 lbs. **Price, single car, \$50.00.**

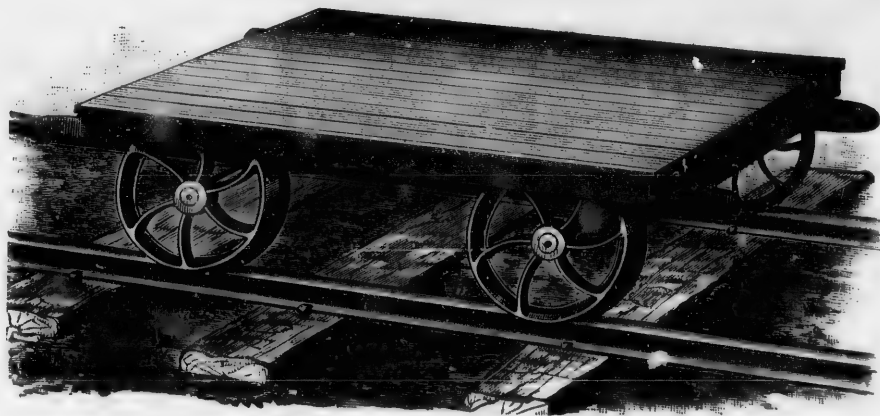
For large Bridge, Section and Construction Gangs.
Capacity of this Car, twelve men and tools. Geared $3\frac{1}{2}$ to 1.

No. 9—Standard Section or Passenger Car with Seats.



Weight, 600 lbs.
Price, single car, \$60.00.

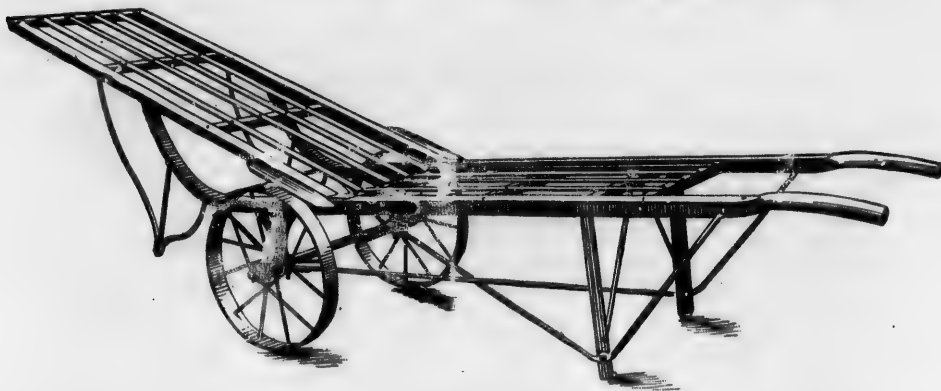
No. 10 — Standard Push Car.



The above Car is built of 2x6 in. lumber; two long sills, four cross sills, six cross rods, floor put on lengthwise of car. Plate wheels 19 in. diameter, weighing 85 lbs., 1 $\frac{1}{8}$ in. shafting, overhanging bearings, and built very substantially.

Price, single car, \$30.00.

Price, single car, \$60.00.

No. 11 — "Kalamazoo" Steel Baggage Truck.

It is through the constant demand by Railroad Companies for stronger, lighter and more durable Railway Appliances that we have experimented and placed upon the market this new feature or construction of a Railway Baggage Truck.

We claim that it will outwear six wooden trucks, as it is made entirely of steel, is stronger, and is not affected by exposure to the weather as are those made of wood.

Our Trucks are made of $2 \times 1\frac{1}{2} \times \frac{1}{4}$ inch T shaped steel; the lower part of the T acts as a brace throughout, and will stand almost unlimited weight. They are thoroughly braced, extra strong, well finished and painted.

To Railroad Companies the advantage and economy in purchasing our Steel Trucks can readily be seen, as we can furnish at a slight advance on price of Wooden Trucks.

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President.

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